

AMENDMENT UNDER 37 C.F.R. § 1.116

U.S. Appln. No. 09/927,442

Attorney Docket No. Q65835

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A resin composition for heat-shrinkable polypropylene shrink label, which comprises: from 50 to 95% by weight of a crystalline propylene- α -olefin random copolymer mainly comprising propylene, the copolymer satisfying the following requirements (1) to (3); and from 5 to 50% by weight of an alicyclic hydrocarbon resin having a softening temperature of not lower than 110°C:

Requirement (1): The copolymer exhibits a melt flow rate of from 0.5 to 10 g/10 min at a temperature of 230°C and a load of 2.16 kg;

Requirement (2): The copolymer exhibits a main fusion peak temperature (T_p) of from 100°C to 140°C as determined by means of a differential scanning calorimeter (DSC); and

Requirement (3): The copolymer exhibits T_{50} of not higher than 125°C with the proviso that T_{50} is a temperature (°C) at which an amount of heat of fusion is 50% of ΔH_m wherein ΔH_m is a total amount of heat of fusion of the copolymer as determined by DSC, wherein in a dynamic viscoelasticity measurement, at least one peak of loss tangent ($\tan \delta$) measured at a frequency of 1 Hz and a strain of 0.1% is observed at the range of from 30°C to 100°C, and a peak value thereof is not smaller than 0.10.

2. (canceled).

3. (original): The resin composition for heat-shrinkable polypropylene shrink label according to Claim 1, wherein the crystalline propylene- α -olefin random copolymer is a propylene-ethylene random copolymer.

4. (original): The resin composition for heat-shrinkable polypropylene shrink label according to Claim 1, wherein the crystalline propylene- α -olefin random copolymer is a copolymer obtained by polymerization in the presence of a metallocene catalyst.

5. (withdrawn): A resin composition for heat-shrinkable polypropylene shrink label, which comprises a crystalline polypropylene in an amount of not smaller than 50% by weight, wherein in a dynamic viscoelasticity measurement, at least one peak of loss tangent ($\tan \delta$) measured at a frequency of 1 Hz and a strain of 0.1% is observed at the range of from 30°C to 100°C, and a peak value thereof is not smaller than 0.10.

6. (withdrawn): The resin composition for heat-shrinkable polypropylene shrink label according to Claim 5, wherein in a dynamic viscoelasticity measurement, at least one peak of loss tangent ($\tan \delta$) measured at a frequency of 1 Hz and a strain of 0.1% is observed at the range of from 30°C to 100°C, and a peak value thereof is not smaller than 0.10.

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7. (withdrawn): The resin composition for heat-shrinkable polypropylene shrink label according to Claim 5, wherein the crystalline propylene- α -olefin random copolymer is a propylene-ethylene random copolymer.

8. (withdrawn): The resin composition for heat-shrinkable polypropylene shrink label according to Claim 5, wherein the crystalline propylene- α -olefin random copolymer is a copolymer obtained by polymerization in the presence of a metallocene catalyst.

9. (original): A film for heat-shrinkable polypropylene shrink label comprising a resin composition according to Claim 1, which has been stretched at least monoaxially at a draw ratio of not smaller than 2.

10. (withdrawn): A film for heat-shrinkable polypropylene shrink label comprising a resin composition according to Claim 5, which has been stretched at least monoaxially at a draw ratio of not smaller than 2.

11. (currently amended): A laminated film for shrink label, which comprises ~~as an~~ ~~interlayer (I)~~ a layer (I) comprising a resin composition according to Claim 1 and a surface layer (II), wherein the sum number of the ~~interlayer layer~~ (I) and the surface layer (II) is not smaller than 2.

12. (withdrawn): A laminated film for shrink label, which comprises as an interlayer (I) a layer comprising a resin composition according to Claim 5, wherein the sum of the interlayer (I) and surface layer (II) is not smaller than 2.

13. (currently amended): A laminated film for shrink label, which comprises: ~~an~~ ~~interlayer-a layer~~ (I) comprising a resin composition according to Claim 1; and a surface layer (II) laminated on at least one side of the ~~interlayer-layer~~ (I), the laminated film having been stretched at least monoaxially at a draw ratio of not smaller than 2,

wherein the surface layer (II) laminated on at least one side of the ~~interlayer-layer~~ (I) has a total thickness of 1 to 50% of the total film thickness, and the surface layer (II) comprises a resin composition comprising a crystalline propylene- α -olefin random copolymer (2) mainly comprising a propylene, the crystalline propylene- α -olefin random copolymer (2) satisfying the following requirements (d) and (e):

Requirement (d): The resin composition exhibits a melt flow rate of from 0.5 to 50 g/10 min at a temperature of 230°C and a load of 2.16 kg; and

Requirement (e): The resin composition exhibits a main fusion peak temperature (T_p) of from 100°C to 150°C as determined by means of a differential scanning calorimeter (DSC).

14. (withdrawn): A laminated film for shrink label, which comprises: an interlayer (I) comprising a resin composition according to Claim 5; and a surface layer (II) laminated on at

least one side of the interlayer (I), the laminated film having been stretched at least monoaxially at a draw ratio of not smaller than 2,

wherein the surface layer (II) laminated on at least one side of the interlayer (I) has a total thickness of 1 to 50% of the total film thickness, and the surface layer (II) comprises a resin composition comprising a crystalline propylene- α -olefin random copolymer (2) mainly comprising a propylene, the crystalline propylene- α -olefin random copolymer (2) satisfying the following requirements (d) and (e):

Requirement (d): The resin composition exhibits a melt flow rate of from 0.5 to 50 g/10 min at a temperature of 230°C and a load of 2.16 kg; and

Requirement (e): The resin composition exhibits a main fusion peak temperature (T_p) of from 100°C to 150°C as determined by means of a differential scanning calorimeter (DSC).

15. (original): The laminated film for heat-shrinkable polypropylene shrink label according to Claim 13, wherein the surface layer (II) comprises a resin composition comprising an anti-blocking agent having a volume-average particle diameter of from 1.0 to 10 μm in an amount of from 0.05 to 1.0 parts by weight based on 100 parts by weight of the crystalline propylene- α -olefin random copolymer (2).

16. (withdrawn): The laminated film for heat-shrinkable polypropylene shrink label according to Claim 14, wherein the surface layer (II) comprises a resin composition comprising an anti-blocking agent having a volume-average particle diameter of from 1.0 to 10 μm in an

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amount of from 0.05 to 1.0 parts by weight based on 100 parts by weight of the crystalline propylene- α -olefin random copolymer (2).

17. (original): The laminated film for heat-shrinkable polypropylene shrink label according to Claim 13, wherein the crystalline propylene- α -olefin random copolymer (2) in the surface layer is a propylene-ethylene random copolymer.

18. (withdrawn): The laminated film for heat-shrinkable polypropylene shrink label according to Claim 14, wherein the crystalline propylene- α -olefin random copolymer (2) in the surface layer is a propylene-ethylene random copolymer.

19. (original): The film for shrink label according to Claim 9, which shrinks in the main shrinking direction at a shrinkage rate satisfying the following relationships (1) to (3), exhibits a specific gravity of not greater than 0.95, and shrinks at a shrinkage rate of less than 3% at a temperature of 40°C in 7 days:

Relationship (1): $S_{80} > 251d - 215$

Relationship (2): $S_{90} > 531d - 462$

Relationship (3): $S_{100} > 627d - 541$

wherein S_{80} , S_{90} and S_{100} are shrinkage rates (%) in the main shrinking direction determined when dipped in a hot water bath at 80°C, 90°C and 100°C, respectively, for 10 seconds; and d is the specific gravity of the film for shrink label.

20. (withdrawn): The film for shrink label according to Claim 10, which shrinks in the main shrinking direction at a shrinkage rate satisfying the following relationships (1) to (3), exhibits a specific gravity of not greater than 0.95, and shrinks at a shrinkage rate of less than 3% at a temperature of 40°C in 7 days:

Relationship (1): $S_{80} > 251d - 215$

Relationship (2): $S_{90} > 531d - 462$

Relationship (3): $S_{100} > 627d - 541$

wherein S_{80} , S_{90} and S_{100} are shrinkage rates in the main shrinking direction determined when dipped in a hot water bath at 80°C, 90°C and 100°C, respectively, for 10 seconds; and d is the specific gravity of the film for shrink label.

21. (original): The laminated film for heat-shrinkable polypropylene shrink label according to Claim 11, which shrinks in the main shrinking direction at a shrinkage rate satisfying the following relationships (1) to (3), exhibits a specific gravity of not greater than 0.94, and shrinks at a shrinkage rate of less than 3% at a temperature of 40°C in 7 days:

Relationship (1): $S_{80} > 251d - 215$

Relationship (2): $S_{90} > 531d - 462$

Relationship (3): $S_{100} > 627d - 541$

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wherein S_{80} , S_{90} and S_{100} are shrinkage rates (%) in the main shrinking direction determined when dipped in a hot water bath at 80°C, 90°C and 100°C, respectively, for 10 seconds; and d is the specific gravity of the laminated film for shrink label.

22. (withdrawn): The laminated film for heat-shrinkable polypropylene shrink label according to Claim 12, which shrinks in the main shrinking direction at a shrinkage rate satisfying the following relationships (1) to (3), exhibits a specific gravity of not greater than 0.94, and shrinks at a shrinkage rate of less than 3% at a temperature of 40°C in 7 days:

Relationship (1): $S_{80} > 251d - 215$

Relationship (2): $S_{90} > 531d - 462$

Relationship (3): $S_{100} > 627d - 541$

wherein S_{80} , S_{90} and S_{100} are shrinkage rates (%) in the main shrinking direction determined when dipped in a hot water bath at 80°C, 90°C and 100°C, respectively, for 10 seconds; and d is the specific gravity of the laminated film for shrink label.

23. (original): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a film for shrink label according to Claim 9.

24. (withdrawn): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a film for shrink label according to Claim 10.

25. (original): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a film for shrink label according to Claim 19.

26. (withdrawn): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a film for shrink label according to Claim 20.

27. (original): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a laminated film for shrink label according to Claim 11.

28. (withdrawn): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a laminated film for shrink label according to Claim 12.

29. (original): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a laminated film for shrink label according to Claim 13.

30. (withdrawn): A heat-shrinkable label having a specific gravity of less than 1.0, which comprises a laminated film for shrink label according to Claim 14.

31. (original): A container having a heat-shrinkable label according to Claim 23 attached thereto.

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32. (withdrawn): A container having a heat-shrinkable label according to Claim 24 attached thereto.

33. (original): A container having a heat-shrinkable label according to Claim 27 attached thereto.

34. (withdrawn): A container having a heat-shrinkable label according to Claim 28 attached thereto.

35. (original): A container having a heat-shrinkable label according to Claim 29 attached thereto.

36. (withdrawn): A container having a heat-shrinkable label according to Claim 30 attached thereto.